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AUTHOR Ward, John G.
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ABSTRACT

This paper describes Oregon Institute of Technology's Staff Career Support (SCS) program, which provides continuous assistance to teaching, administrative, and counseling faculty willing to share responsibility for their own development. This comprehensive program provides opportunities to improve ability to teach, to increase state-of-the-art technical knowledge, and to develop more effective administrative skills. Representative of specific professional staff development components of the SCS program are: workshops, mini-courses, and seminars in teaching, instructional innovation, and media usage; funded course development opportunities; self-study classroom video-taping services; media grants; extension teaching; use of State equipment and facilities; expert-in-residence programs; outside consulting opportunities with business and industry; travel opportunities; reduced tuition within the Oregon State System; and various types of leave, with and without pay. The SCS program is annually reviewed by faculty and administrative personnel and, as necessary, appropriate modifications are suggested. Importantly, faculty professional development is separated from the evaluation process; that is, faculty are evaluated following, not during, development. (Author/JDS)

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FACULTY DEVELOPMENT AT OREGON INSTITUTE OF TECHNOLOGY

by

John G. Ward
Associate Professor, Business Department

Oregon Institute of Technology
Klamath Falls, Oregon 97601

JC 760 579

FACULTY DEVELOPMENT
AT
OREGON INSTITUTE OF TECHNOLOGY

Is faculty development just another fad? Or will it provide durable solutions to the multiple problems - austerity, obsolescence, accountability - facing engineering and technical faculties? The explosive spread of faculty development programs to about 500 American campuses suggests the need was real and the timing right. National centers, newsletters, and many conferences give visibility to institutional and collaborative efforts, and provide opportunities for the exchange of strategies.

At Oregon Institute of Technology, continuous faculty development has been stressed for over twenty years. The original expectation was a three-summer rotation: one summer in research or industry, one summer in formal academic work, and one summer on vacation. Present policy is that each faculty member should be able to document the equivalent of twelve weeks appropriate professional development during each three-year period of consecutive annual appointments. These expectations can be met in varied ways: schooling, work, research, in-service programs, workshops, conferences, etc. during the academic year, vacations, and periods of leave as well as summer activities.

OIT is committed to facilitating professional growth whenever possible and sharing with faculty in its support. A program of Staff Career Support (SCS) which provides meaningful assistance to teaching, administrative, and counseling faculty willing to share responsibility

in their own development is offered. This comprehensive program makes opportunities and resources available to early-, mid-, and late-career faculty in three broad areas: to improve ability to teach, to increase state-of-the-art technical knowledge, and to develop more effective administrative skills and it conforms to Oregon's recently adopted Administrative Rules on faculty development (1).

STAFF CAREER SUPPORT PROGRAM

The OIT program is an important means to promote continued vitality among faculty, maintain a flow of innovative ideas, and provide an attractive environment within which tenured and non-tenured faculty alike find challenge and opportunity to improve professional competence. An SCS document, with periodic supplements, is provided each faculty member during fall quarter detailing the support available that academic year. The current program includes twenty-six elements, each separately described with specific information on eligibility; extent of support available; application details and deadlines; approval criteria, procedures and timetable; and expected notification date. A typical SCS element, the September Institute, illustrates the format on the next page.

Instructional Development

Inasmuch as OIT's primary function is instruction, priority support is given development making the greatest contribution to effective teaching. Nine program elements directly support the classroom and laboratory instructor:

--NEW FACULTY ORIENTATION explains OIT's unique two-plus-two curriculum, objectives, policies, and programs, and the

Scope

OIT finds that most new faculty coming directly from industry, and many new faculty with limited previous teaching service, lack experience in effectively teaching the type of student likely to enroll at OIT. A one-week pre-service workshop termed the September Institute in which experienced faculty informally share their experiences and solutions to teaching problems most likely to confront teachers new to OIT is presented each fall. This mandatory session for new faculty has two objectives: acquaint new faculty with procedures, approaches, and services useful in quickly delivering quality education to technology students, and providing additional time as well as support from learning specialists to adequately prepare for the initial teaching assignment. The September Institutes have also proven popular with returning faculty who wish to share their experiences with other faculty.

The following topics are covered in the September Institute:

--Characteristics of OIT students
--How to write performance objectives
--Leading discussions with ease
--How to turn students on
--Making mediaware and operating equipment
--Approaches to testing and grading
--Interpreting student evaluation results
--Faculty evaluation

Eligibility

All faculty new to the OIT campus are expected to attend, and any returning faculty who wish to prepare special materials or presentations are invited to attend on a voluntary basis.

Support

All instruction, instructional materials, and classroom facilities are provided without expense to the individual or to the department. The reporting date of new faculty is adjusted to permit full participation in the pre-service workshop. The 1976-77 September Institute will be scheduled from September 7 to September 10, 1976.

Application

Each new faculty member as a condition of appointment is expected to attend. Returning faculty members may apply to the Dean of Academic Affairs.

Approval

Not required.

Closing Dates and Notification

All new faculty will be notified in their letter of appointment as to the date, time and place of the pre-service workshop. Returning faculty will be notified of their acceptance within one week of application.

institution's relationship and role within the Oregon State System of Higher Education. Attendance is a condition of employment.

--SEPTEMBER INSTITUTE is a one-week pre-service workshop for all new teaching faculty where experienced faculty informally share their experiences and solutions to problems likely to confront new teachers. Teaching Tips - A Guidebook for the Beginning College Teacher, fall quarter class assignments, course objectives, and required texts are sent new faculty during the summer (2). Questions and problems are solicited in advance so discussion can focus on individual needs. Hands-on workshops, the interpretation of student evaluation results, and explanation of OIT's Faculty Annual Merit Evaluation (FAME) system have proven most popular (3). Also, this fall a group of returning students plan to participate in one of the sessions to add their insights and comments.

--WORKSHOPS, MINI-COURSES, AND SEMINARS, usually about one per month, provide opportunities for colleague sharing on common problems and increase the diffusion rate for innovation. Topical items such as computer generated tests, lab teaching tips, and an open house on self-pacing and roundtable on handling slow learners are interspersed with mini-courses on storyboards, Super 8 films, overheads and slides. In addition, credit courses open only to faculty covering basic and advanced media are offered. The SCS program announces the yearly "menu" for all these events.

--FUNDED COURSE DEVELOPMENT, both with individual faculty and entire departments, has been provided during the academic year and via extended contracts during the summer. To date, six of sixteen departments have undertaken major curricular revisions with substantially all members participating during summer months. Objectives have included individualizing the first two years of the Civil Engineering Technology program, restructuring and updating the Electronics Engineering Technology baccalaureate curriculum and other major projects. Similar development of course sequences in an additional three departments has been undertaken. Support includes outside consultation; purchased mediaware; special secretarial, space, and materials services; and academic wages. Funded course development is provided where improved effectiveness and efficiency are anticipated. OIT has developed qualitative and quantitative measures for project results; these suggest past expenditures are fully justified. Extension of these programs to other departments is expected.

--SELF-STUDY CLASSROOM TAPING services, both audio and video, are available on request. Early-, mid-, and late-career faculty find taping helpful in evaluating new courses or revising presentation techniques. In addition to portable equipment, OIT has equipped a new lecture-demonstration classroom with special lighting and remote video-taping equipment. This working studio minimizes the distracting presence of a camera crew and hardware

on normal class routine, and should increase utilization of video-taping for self-improvement.

--MEDIA GRANTS make non-departmental funds available to any faculty member for producing instructional media projects costing over fifty dollars. All projects costing less than fifty dollars are funded by the Media Services Center. Grants are awarded twice yearly on a competitive basis to individual faculty. Preference is given projects showing the greatest benefit to student learning and teacher productivity. Recent projects funded include video-taped case problems in thermal pollution and earth moving, geologic models of geothermal formations, and slide-tape sequences for individualized hydraulics experiments. About twenty to twenty-five projects are funded each year, about 70 percent of those proposed.

--LEARNING CENTER GRANTS differ from Media Grants in that purchased mediaware as well as self-produced materials can be funded provided the materials are used in the Learning Center. This new program element has been over-subscribed during the past two years; only half of the thirty projects proposed each year could be funded. Breadth of faculty interest is shown by projects being proposed by eleven of the sixteen instructional departments on campus. Representative projects include self-paced sequences on mail survey questionnaire design, data presentation techniques, narrated film loops on the Tacoma Narrows bridge failure, and videotapes for individualized keypunching instruction.

--INFORMATION ON IMPROVED TEACHING is provided through a variety of means. All faculty receive Memo to the Faculty from the University of Michigan Center for Research on Learning and Training, and the Instructional Improvement and Evaluation Newsletter from the Teaching Research Division, Oregon State System of Higher Education. All department chairmen and associate deans receive Educational Research and Methods from the American Society for Engineering Education; circulation copies are available in the library. In addition, the library maintains subscriptions to about fifty educational and disciplinary journals directed toward teaching improvement. Faculty are encouraged to recommend teaching improvement resource materials for library accession. Occasionally distinguished specialists in teaching visit the campus as Experts-in-Residence, a program more fully described later.

--MEDIA SERVICES CENTER provides instructional media consultation and production services to all faculty at no cost to the individual or department on any project costing under fifty dollars. The Center includes a media workshop staffed, equipped, and supplied for faculty use. Other services include media ordering, distribution, and projection, and campus-wide media equipment preventive maintenance and repair.

--EXTENSION TEACHING to meet the educational needs of Oregon is an important means for maintaining institutional contact with industry. As the polytechnic college within the state system, OIT

provides unique courses in Engineering Technology, Industrial Technology, and Allied Health fields. Release time, travel, and overload or other compensation offer critical support for short courses, workshops, seminars, and independent study offerings, both credit and non-credit, at on- and off-campus locations.

The foregoing SCS elements focus on teaching. Three elements serve to enhance both instructional skills and state-of-the-art competence as described below.

--USE OF STATE EQUIPMENT AND FACILITIES such as the Computer Center, Library, laboratory and shop facilities, auditoriums, etc. within a public campus is perhaps somewhat different than at private institutions. Oregon's Administrative Rules set forth policies within which OIT maximizes their availability for instructional and professional development. Present funding permits extending computer services to any faculty member for projects not exceeding twenty-five dollars. Departmental and institutional budgets can fund projects beyond this amount. Other research facilities and equipment are normally available without charge, or are funded from departmental budgets on approved projects.

--GRANT ASSISTANCE is provided through a central instructional grant office. External funding opportunities are periodically announced; sourcing, consulting, reviewing and editing services provided; and grant administration performed.

--EXPERT-IN-RESIDENCE programs bring industrial, governmental, and educational specialists to campus for three to five days for interaction with students and faculty. Typical visitors lend an industrial viewpoint to an academic atmosphere; they live in the Residence Hall, eat with students in the Commons, are resource speakers in class and student club meetings, and meet informally with students and faculty. Faculty wishing to schedule an Expert-in-Residence merely request arrangements be made; the Coordinator of Industrial Relations arranges meals, lodging, local transportation and publicity. Normally transportation and compensation is provided by the sponsoring firm or agency.

PROFESSIONAL DEVELOPMENT

OIT feels maintenance of state-of-the-art competence is as vital as teaching competence in providing quality technical education. "Practice or perish" receives frequent mention at American Society for Engineering Education events. OIT provides five support activities to help faculty stay abreast of technology's cutting edge.

--SABBATICAL LEAVE follows guidelines established in Oregon's Administrative Rules. Faculty, eligible for sabbatical every seven years, have recently returned from geothermal studies in New Zealand, geodetic assignment in Alaska, construction management in the western United States, advanced degree programs in eastern and western universities, and similar activities.

--CONSULTATION is encouraged provided it does not interfere with regular duties. The Coordinator of Industrial Relations and the Director of Placement provide assistance and referral services to faculty on request but most contacts are privately arranged. The extensive use of industrial and professional advisory committees in many departments facilitates contact with knowledgeable faculty.

--FACULTY EXCHANGE, restricted by Oregon's Administrative Rules to exchange with faculty in comparable public higher education institutions, has not been arranged during the past three years. OIT is committed to contact and facilitate exchanges whenever possible, and to offer the same financial, rank, and merit salary consideration as if the faculty member were still on campus. Methods for faculty-industrial exchange are being explored along lines studied by the Engineering Research Council of the American Society for Engineering Education and the Education Committee of the Industrial Research Institute (5). Institutional support for individual faculty listing at the Faculty Exchange Center is being considered (6). Greater visibility is planned for this program next year.

--SUMMER EMPLOYMENT in government and industry is encouraged and supported by assistance from the Coordinator of Industrial Relations and the Director of Placement. About half a dozen faculty request assistance each year but most make arrangements directly

--PATENT assistance to counsel, evaluate, and assist faculty developing an invention is available from an institutional patent committee. All employees holding academic rank sign an "Agreement to Assign Invention or Patent Rights" as a condition of employment. Detailed policies relating to patents are specified in Oregon's Administrative Rules.

ADMINISTRATIVE DEVELOPMENT

Two SCS elements are specifically designed to meet the needs of administrators. A third program, sponsored by Oregon's Executive Department, provides a state-wide mid-management short course and workshop series for all state agencies. About one-third of OIT's department chairmen and other administrative faculty have taken advantage of these continuing education opportunities.

--DEPARTMENT CHAIRMAN WORKSHOPS are normally scheduled twice each year at off-campus locations to assist new and experienced department chairmen in effectively managing their departments. Topics such as budget planning and management, evaluation interviewing, management by objectives and curriculum analysis are presented.

--TASKFORCE AND COMMITTEE OPENINGS are periodically announced and interested faculty invited to apply. These announcements give broader opportunity for institutional service, administrative experience, and a perspective on inter-divisional and institutional complexities. Volunteer service on a single committee is considered usual.

GENERAL DEVELOPMENT SUPPORT

In addition to the foregoing, the SCS program includes six elements which support faculty development in all categories as described below.

--TRAVEL budgets, both in- and out-of-state, are allocated each department and instructional service unit at the start of each academic year and managed by the chairman or supervisor to best advantage. Institution-wide expenditure patterns last year based on funding of about $180 per faculty member were as follows: 35 percent professional development; 22 percent instructional development; 18 percent administrative; 13 percent curriculum development; 12 percent student field trips.

--REDUCED TUITION rates are offered all faculty at institutions within the Oregon State System and about 15 percent of the faculty take courses relating to teaching, technical developments or administration during a typical year.

--ASSISTANCE ON FELLOWSHIP APPLICATIONS to agencies, foundations, and institutions is provided to all faculty by the Coordinator of Instructional Research and the Director of Financial Aids. In some instances sabbatical leave, leave without pay, release time or a modification of faculty reporting date is also extended.

--LEAVE WITHOUT PAY, PROFESSIONAL SOCIETY MEMBERSHIP, AND MODIFICATION OF REPORTING DATE may also be arranged when appropriate within policies established in Oregon's Administrative Rules.

SCS EVALUATION AND REVISION

An institutional Committee on Teaching composed of four teaching faculty appointed by the Faculty Senate and four department chairmen appointed from the Administrative Council annually review the SCS program. They solicit faculty views on needed modification and extension, and make recommendations to the President's Council regarding modifications which would result in improved teaching ability or state-of-the-art competence. Administrative faculty likewise recommend modifications that would result in increased ability and effectiveness by administrators.

Faculty reaction to each SCS element is solicited via questionnaire on two points: (a) Have you or will you use this form of support, and (b) How useful was the support in your professional development. These surveys highlight high use - high value programs which need further support, low use - high value programs which need better publicity, and low value programs which are modified or discontinued. Reallocation of available funds between programs is based on faculty intentions and interests.

The Committee on Teaching drew additional information on instructional/professional development needs from a third party survey conducted by the Teaching Research Division, Oregon State System of Higher Education. About 70 percent of the faculty completed the lengthy, twenty-six item needs assessment survey and provided detailed information and suggestions relating to SCS development. Tabulation and analysis by division and department revealed special

needs such as graphic art and reproduction for Engineering Technology, and test construction for Medical Technology. General faculty needs, naturally, focus on time and money constraints.

This past year the Committee recommended SCS extensions totalling nearly $29,000 beyond the funding increases included in base budgets. About $12,700 in proposals were approved. Major additions were increased technician assistance for Media Services, extension of the Media and the Learning Center Grant programs, funded release time for instructional development, designation of a Coordinator for Instructional Development, and modest funding for teaching Expert-in-Residence travel and faculty travel to universities. Principal items not funded were establishment of a formal Instructional Development Center, a Faculty Fellowship Program, and a special Faculty Research Area. Two SCS elements were eliminated, one providing temporary reduction in teaching assignment for administrators returning to teaching and the other for circulating to west coast industries a directory of OIT faculty available for consulation.

COMMENTS AND COST EFFECTIVENESS

The low key presentation of varied opportunities meeting individual needs through OIT's cafeteria approach seems to work very satisfactorily and has developed support from teaching and administrative faculty. OIT's strategy of keeping "the carrot" (faculty development) clearly separate from "the stick" (faculty evaluation), and of eavluating faculty strength following development rather than to locate weakness has proven sound. Many institutions include studert evaluations with other

forms of development support; OIT intentionally keeps this apart from SCS, both administratively and conceptually.

Anyone working in faculty development soon senses low participation by those members thought to have the most to gain. Professor James Derry's (Purdue University) combined "seduction and coercion" approach has resulted in attracting some faculty not inclined to participate. A personal invitation can work wonders, especially in a workshop where no distinction is made between presenters and participants.

An elusive element in faculty development programs is a "safe harbor" on campus where faculty can discuss their frustrations as teachers. An informal "brown bag" lounge might simulate the "ERM corral" at American Society for Engineering Education Annual Conferences provided it was faculty sponsored.

The faculty development band wagon must withstand cost-effectiveness scrutiny if it is to prove less than a fad. OIT has begun qualitative and quantitative studies on major instructional development projects three years ago, but has yet to extend these to smaller projects and professional development activities. It is clear that educational efficiency must be considered by the Committee on Teaching in recommending reallocation of scarce resources. Next year, Change's policy paper on "Colleges and Money: A Faculty Guide to Academic Economics" will be the departure point in measuring faculty development's durability at OIT (7).

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